

Reversible response of poly(aspartic acid) hydrogels to external redox and pH stimuli

Electronic supporting information (ESI)

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Experimental parameters of Ellman's assay

Calibration for Ellman's assay was performed by measuring thiol concentration of solutions of cysteamine hydrochloride with different concentrations. The experimental parameters were the following: 1800 μl of buffer solution (aqueous buffer solution at pH = 8: 0.1 M imidazole, 1 mM EDTA; nitrogen was bubbled through the solution for 15 min to remove oxygen), 180 μl aqueous solution of cysteamine hydrochloride and 20 μl of 10 mM aqueous solution of Ellman's reagent were measured into a 2 ml Eppendorf tube. The tube was incubated at 37 °C for 15 min to complete the reaction. UV-spectra (Analytic Jena Specord 200 spectrophotometer, Germany) were recorded immediately after the reaction. The peak at 405 nm was used for further evaluation. (Equation of calibration curve: $A = 1.161 C_{\text{SH}} + 0.0447$, $R^2 = 0.9988$, $n = 5$).